

NEW OR NOTEWORTHY NORTH AMERICAN
CONVOLVULACEAE

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(WITH FOUR FIGURES)

The following notes and descriptions of some American species of the Convolvulaceae are based mainly upon material in the herbarium of the United States National Museum, and my thanks are due to Dr. J. N. ROSE and Mr. JOSEPH H. PAINTER of that institution for the privilege of examining and studying the specimens.

Ipomoea petrophila, sp. nov.—§ ORTHIPOMOEAE; *Suffruticosae*.—Erect or the branches ascending from a perennial root; stems pale and finely tomentulose, especially above, 30–60^{cm} high: leaf-blades lanceolate, sometimes broadly so, 4–10^{mm} long, obtuse at apex, obtuse or tapering and 3-nerved at base, greenish and finely sericeous-pubescent above, more densely so beneath: sepals unequal, oblong or elliptical-oblong, obtuse, the outer ones 6–8^{mm} long, finely pubescent, the inner ones glabrous, 8–11^{mm} long: corolla white with a cream-colored throat, 6–8^{cm} long, glabrous: peduncles 1–5^{cm} long, 1–3-flowered; pedicels somewhat thickened but not fleshy, 1–2^{cm} long: capsules conical-ovoid, 14–16^{mm} high, 2-celled, thick-walled, topped by the persistent base of the style which falls away at maturity, 4-valved, 4-seeded; seeds brownish, 3-angled, about 7^{mm} long, the two dorsal angles with a dense coma of white hairs nearly the length of the seed.

MEXICO: State of Chihuahua, rocky hills near Chihuahua, *Pringle* 340, Aug.–Sept. 1885; type, sheet no. 40372 in U. S. Nat. Herb., Sta. Eulalia Plains, Chihuahua, *Wilkinson*, July and Oct. 1885.

The type sheet bears the determination "*I. longijolia* Benth.," to which the species is evidently related.

Ipomoea ciervensis Painter, sp. nov.—§ ORTHIPOMOEAE; *Suffruticosae*.—Perennial; stems erect, bushy, woody below, 30–60^{cm} tall, densely white tomentulose and pubescent throughout except on the corolla: leaves crowded; leaf-blades sessile or the petioles 1–8^{mm} long, elliptical-lanceolate to obovate-lanceolate, 3–5-nerved at the

obtuse base, apex acute or the larger leaves obtuse and somewhat 3-lobed at apex, 4–6^{cm} long, 2–4^{cm} broad, more densely white tomentulose and pubescent beneath than above: peduncles about 1^{cm} long, the two bracts approximate to the calyx, linear-spatulate or sometimes subfoliaceous, 14–16^{mm} long or rarely longer: sepals equal, ovate-lanceolate, attenuate, about 15^{mm} long, glabrous within: corolla white, about 6^{cm} long, pubescent without in bud, strigulose without on the margins of the plicae when expanded: stamens less than half the length of the corolla; filaments glandular-pubescent and expanded below: stigma capitately 2-lobed; ovary 2-celled.

MEXICO: State of Queretaro, Hacienda Ciervo, between San Juan del Rio and Cadereyta, *Rose and Painter* 9660, Aug. 20, 1905; type, sheet no. 453150 in U. S. Nat. Herb. Del Ciervo et Cerro de la Messa, *Dr. Altamirano* 1557, Aug. 20, 1905.

The mature capsules and seeds of this remarkable species have not been seen, but it is closely related to a group of species of similar habit abundantly represented in the Brazilian flora, with thick-walled ovoid capsules and seeds with a coma of hairs on the dorsal angles. In North America its nearest but by no means close allies are *I. petrophila* House and *I. longifolia* Benth., natives of regions much further north.

Ipomoea glabriuscula, sp. nov.—§ ORTHIPOMOEA; *Arborescentes*.—Erect, woody and probably tree-like, glabrous or nearly so: leaf-blades ovate, short-acuminate, shallow cordate, 5–8^{cm} long, 4–7^{cm} broad below the middle, glabrate above, minutely and sparingly pubescent beneath; petioles 3–4^{cm} long, slender: peduncles exceeding the subtending petioles, often the blades, 4–12^{cm} long, branching, 4-many-flowered; pedicels about 1^{cm} long, not thickened: sepals unequal, orbicular, glabrous, the outer ones 4.5–5^{mm} long, the inner 6–7^{mm} long: corolla white, slender funnelform, about 6^{cm} long, glabrous or with some slight pubescence on the plicae without.

GUATEMALA: *Enrique Th. Heyde*, 1892; type, sheet no. 256072 in the U. S. Nat. Herb.

Related to *I. fistulosa*, from which it differs by its glabrous or nearly glabrous calyx and corolla, its broader and relatively shorter leaf-blades, and the young parts glabrous.

Ipomoea nicaraguensis (Donnell Smith).—*Ipomoea fistulosa* var. *nicaraguensis* Donnell Smith, BOT. GAZETTE 19:256. 1894.—§ ORTHIPOMOEA; *Arborescentes*.—A small tree with velvety canescent twigs:

leaf-blades broadly ovate or reniform-ovate, shallow cordate, acute, mucronate, 7–12^{cm} long and nearly as broad, green and minutely but densely pubescent above, velvety-canescens beneath; petioles 3–4^{cm} long: peduncles several-flowered; pedicels 4–8^{mm} long: sepals broadly ovate, rounded, minutely tomentose without, about 7^{mm} long, equal: corolla white or pinkish, 6–7^{cm} long, the tube rather slender, tomentose without on the plicae of the limb.

✓Type locality: Rio de las Lajas, Dept. Rivas, Nicaragua, alt. 120^m. *W. C. Shannon* 5046, April 1893. Herbarium sheet no. 246468 of the duplicate in the U. S. National Museum.

Ipomoea cuernavacensis, sp. nov.—§ ORTHIPOMOEAE; *Arborescentes*.—Closely related to *I. arborescens* (Willd.) G. Don, and resembling it in habit and characters of all parts excepting the leaves; leaf-blades oblong, rounded at base, not cordate, long-acuminate, 10–15^{cm} long, 5–6.5^{cm} broad.

✓MEXICO: In fields near Cuernavaca, state of Morelos, *Rose and Painter* 6963, Sept. 10, 1903.

Ipomoea calva, sp. nov. (*fig. 1*).—§ ORTHIPOMOEAE; *Arborescentes*.



FIG. 1

calva

—An irregular tree, 6–7^m tall, glabrous or nearly so: bark of branches and twigs whitish: leaves clustered near the ends of the twigs; blades small, 2.3^{cm} long, ovate-lanceolate, attenuate to a blunt, mucronulate apex, the base obtuse or rounded, 8–12^{mm} broad below the middle, glabrous above, puberulent on the veins beneath; petioles shorter than the blades, 1–2^{cm} long: peduncles 1-flowered, the pedicel portion subsessile, about 2^{cm} long, slightly thickened upward: sepals coriaceous, minutely puberulent, subequal, broadly oblong, rounded, 8–10^{mm} long: corolla campanulate-funnelform, white, 4.5–5^{cm} long; limb spreading, about 4^{cm} broad, with five short rounded lobes; tube about 1^{cm} in diameter.

✓MEXICO: State of Guerrero, La Junta, *E. W. Nelson* 6992, April 5, 1903; type in U. S. Nat. Herb.

Related to *I. Wolcottiana* Rose, from which it differs by its smaller corolla and smaller leaves of different shape.

Ipomoea Lozani Painter, sp. nov. (*fig. 2*).—§ STROPHIPOMOEAE; *Integrifoliae*.—Perennial, at least below, twining, 1–2^m long or more: stems herbaceous above, glabrous: leaf-blades narrowly ovate, deeply cordate-sagittate, abruptly narrowed, attenuate and mucronate, 5–8^{cm} long including the basal auricles which are rounded, converging, and often overlapping; petioles as long as the midvein of the blade, or slightly longer: peduncles 1-flowered, shorter than the subtending petioles, finely pubescent especially near the base; pedicel portion puberulent, thickened and fleshy, 3–4^{cm} long: sepals equal, coriaceous, puberulent and slightly tentacular, oblong-lanceolate, 12–14^{mm} long, acute: corolla campanulate-funnelform, blue or purple, 6–7^{cm} long; the somewhat 5-lobed limb as broad; tube whitish below.



FIG. 2

= G. 4!
= collina

MEXICO: State of Queretaro, stony hillside near San Juan del Rio, *Rose and Painter* 9542, Aug. 18, 1905; type, sheet no. 453033 in U. S. Nat. Herb.

Related to *I. tentaculifera* Greenm. but with deeper cordate leaf-blades, shorter peduncles and pedicels, and less tentacular sepals.

Ipomoea mestecensis, nom. nov.—*Calonyction dubium* Mart. & Gal. in Bull. Acad. Brux. XII. 2:268. 1845. *Ipomoea dubia* Hemsley, Biol. Cent.-Am. Bot. 2:368. 1882; not *I. dubia* R. & S. Syst. 4:216. 1819.

Type locality: In woods, Mesteca and Yavesta, Oaxaca, Mexico.

Distribution: Woods, southern Mexico in the state of Oaxaca.

Specimens examined: OAXACA; Sierra de San Felipe, *Chas. L. Smith* 910, 1894, alt. 7000–8000^{ft}; foothills near Oaxaca, *Pringle* 4693, 1894, alt. 6000–7000^{ft}.

Ipomoea silvicola, sp. nov. (*fig. 3*).—§ STROPHIPOMOEAE.—Twining, probably several meters high, slender: stems pubescent above: leaf-blades orbicular-ovate, cordate, acuminate, entire or 3-lobed, the

lateral lobes rather high on the blade, 5–12^{cm} long, appressed pubescent above, more densely so beneath, the young leaves sericeous pubescent;

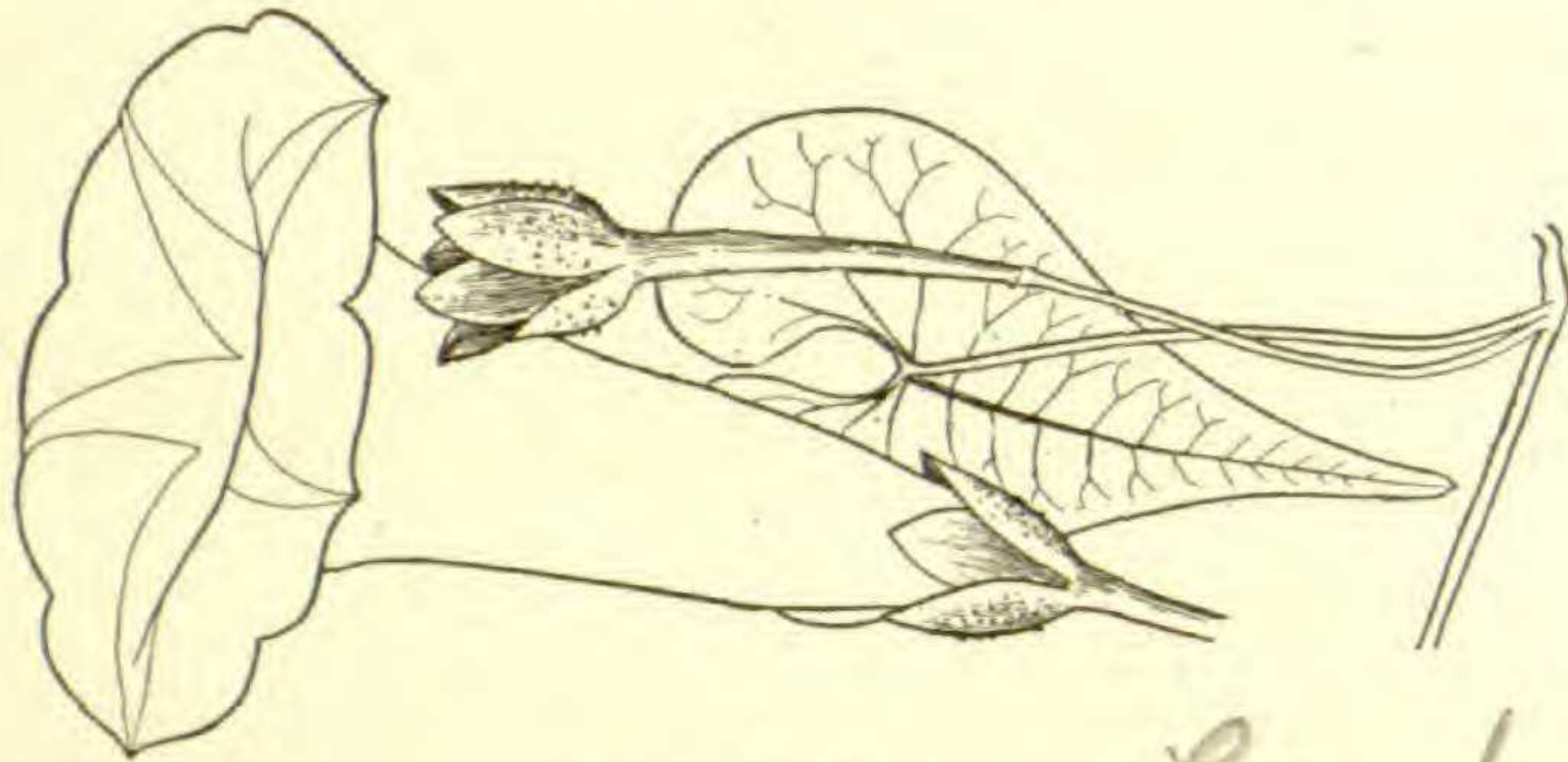


FIG. 3 = *S. 2.!*
= *S. 2.!*

petioles pubescent, mostly shorter than the blades: peduncles less pubescent than the subtending petioles and exceeding them: sepals unequal, lanceolate, acuminate, 18–28^{mm} long, appressed pubescent and densely tentacular below, nearly glabrous toward the apex: corolla campanulate-funnelform, 6–7^{cm} long, blue, glabrous; the limb as broad and with five rounded lobes.

✓ GUATEMALA: Rio de Las Canas, Dept. Santa Rosa, alt. 1000^m, Heyde and Lux., Sept. 1892 (*John Donnell Smith* distribution number 4022); type, sheet no. 354958 in U. S. Nat. Herb.

The type sheet bears the determination "*I. macrantha* Peter," to which this specimen is not closely related. *I. macrantha* Peter is a homonym several times over, and according to HALLIER is *Calonyction campanulatum* Hallier f.

***Ipomoea collina*, sp. nov.** (*fig. 4*).—§ STROPHIPOMOEA.—Twining, slender: stems several meters long, probably perennial below; stems, petioles, and peduncles minutely pubescent or puberulent: leaf-blades ovate, cordate, 3–7^{cm} long, deeply 3–5-lobed, the middle lobe contracted below into a slender base, the lateral lobes narrower, basal lobes often bifid or coarsely toothed; petioles as long as the blades or shorter, slender and almost filiform: peduncles 1–5-flowered, stout,

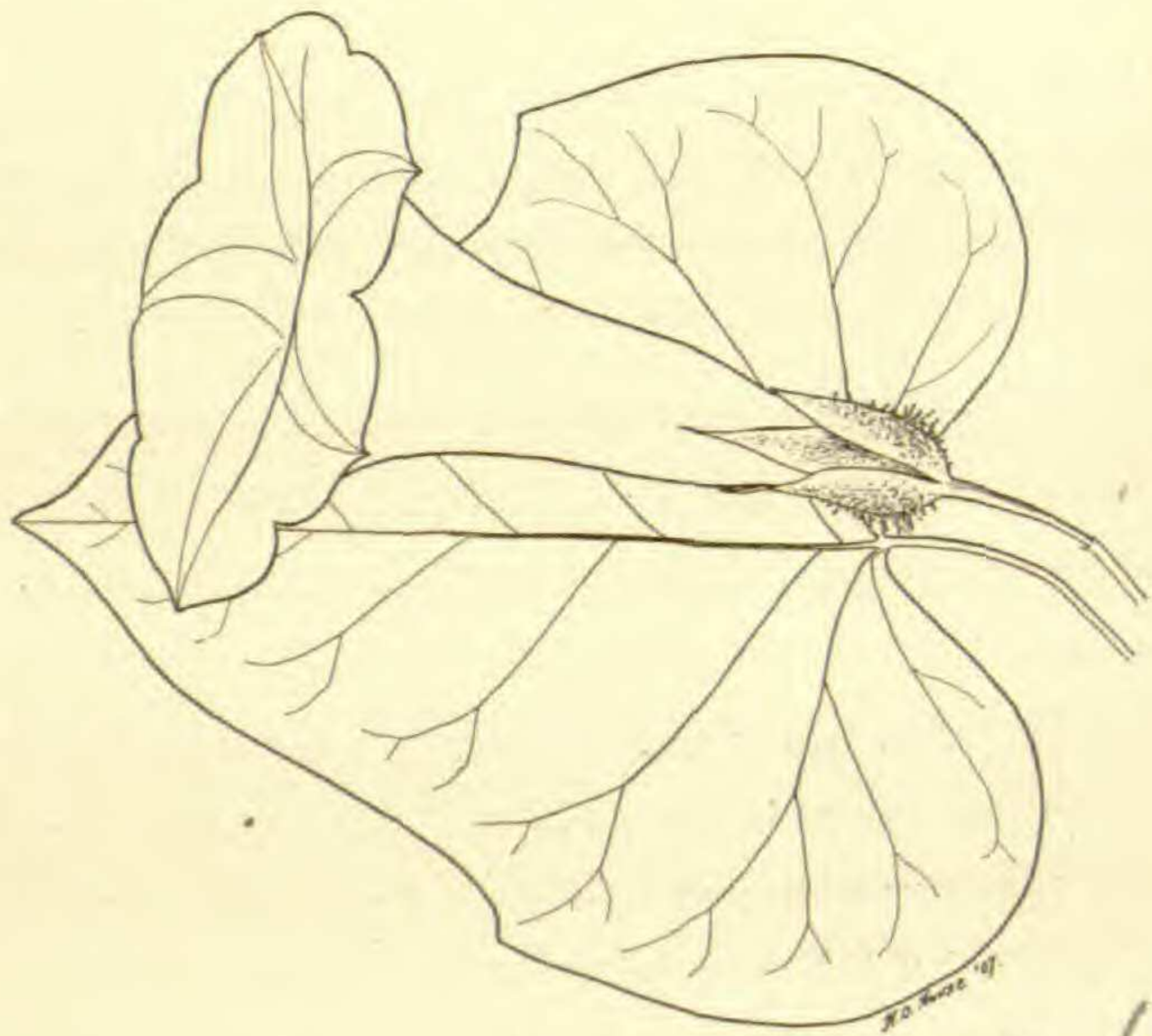


FIG. 4 = *S. 3.!*
= *S. 3.!*

exceeding the subtending leaves, 13-25^{cm} long; bracts small or lacking; pedicels 1-3^{cm} long, somewhat thickened: sepals unequal, 8-14^{mm} long, lanceolate, subcoriaceous, the outer shorter and with some slight scattered pubescence, the inner ones longest, glabrous, cuspidate-acute and scarious margined: corolla bright blue with a white tube, 5-7^{cm} long; limb as broad, subentire; tube broad and expanding campanulate from above the calyx: stamens unequal; anthers sagittate at base: stigma with two nearly distinct globose lobes; capsules ovoid, 2-celled, 4-seeded.

MEXICO: State of Coahuila, San Lorenzo Cañon, six miles southeast of Saltillo, *Palmer* 396, Sept. 21-23, 1904; type, sheets nos. 471266 and 471265 in U. S. Nat. Herb.

Related to *I. laeta* A. Gray, from which it differs by its much smaller corolla, longer peduncles, and more glabrous habit.

Ipomoea Plumieriana, nom. nov.—*Convolvulus coccineus heptaphyllos*, *radice crassissima* Plum. Cat. 1. 1703; Plum. Amer. 79. pl. 90. f. 1. 1755 (excl. syn. Sloan, Browne and Pluk.). *Convolvulus macrorhizos* L. Syst. ed. X. 923. 1759; Sp. Pl. ed. 2, 223. 1762; Ders. in Lam. Encycl. 3:567. 1789. *Ipomoea macrorhizos* R. & S. Syst. 4:211. 1819; Choisy, in DC. Prodr. 9:388. 1845; Urban, Symb. Ant. 3:352. 1902; not *I. macrorhiza* Michx. Fl. Bor. Am. 1:141. 1803. *Batatas macrorhizos* G. Don, Gen. Syst. 4:261. 1838. *Ipomoea heptaphylla* Griseb. in Mem. Am. Acad. 8:(Pl. Wright.) 527. 1863; not *I. heptaphylla* Voigt. Hort. Suburb. Calc. 360. 1845, and others.—Glabrous, twining, stout, 10^m high or more: leaf-blade digitately 7(rarely 5, 6, or 8)-divided; segments stalked, elliptical-oblong to lanceolate, broadest above the middle, tapering to an acuminate base, apex abruptly acuminate or nearly obtuse, membranaceous or chartaceous, 5-10^{cm} long, entire; petioles usually a little shorter than the middle segment: peduncles shorter than the subtending petioles, 1-6^{cm} long, 1-1.5^{mm} thick, 2-10-flowered; primary pedicels 1-1.5^{cm} long, somewhat thickened in fruit: sepals unequal, the inner a little longer than the outer ones, suborbicular, 9-10^{mm} long: corolla scarlet, purple or purplish-red, 5^{cm} long or less, dilated-campanulate above the calyx; tube about 20^{mm} thick: stamens 15-25^{mm} long; anthers usually protruding: capsules twice as long as calyx, thickest above the middle, 2-celled, 4-seeded; seeds blackish,

covered on the dorsal angles with a long coma of cinnamon-brown hairs.

Distribution: West Indies, throughout the Greater Antilles, Cuba, Jamaica, St. Domingo, etc.

Illustrations: Plum. Amer. *pl.* 90. *f.* 1.

Specimens examined: JAMAICA: Gordontown Road, *Harris*, Jan. 7, 1902; Barrack Hill, *W. Cradwick*, July 1890. CUBA: *Wright* 1371, 1860-64.

Ipomoea rubella, nom. nov.—*Ipomoea pulchella* W. Hook. Bot. Mag. 73: *pl.* 4305. 1847; not *I. pulchella* Roth. Nov. Pl. Sp. 115. 1821, and others. *I. macrorhiza* Griseb. Fl. Br. W. Ind. 471. 1864; not *I. macrorhizos* R. & S. Syst. 4:211. 1819, nor *I. macrorhiza* Michx. Fl. Bor. Am. 1:141. 1803. *I. Grisebachii* Urban, Symb. Ant. 3:353. 1903; not *I. Grisebachiana* Meissn., Peter in Engler & Prantl, Natürl. Pflanzenfam. IV. 3a:30. 1891.

Type locality and distribution: Jamaica.

Illustrations: Bot. Mag. *pl.* 4305.

Operculina ornithopoda (Robinson), comb. nov.—*Ipomoea ornithopoda* Robinson, Proc. Am. Acad. 27:183. 1892; Greenman, *l. c.* 39:84. 1903. *Operculina angustiloba* House, Bull. Torr. Bot. Club 33:501. 1906.

MEXICO: San Luis Potosi, hills, Canoas, *Pringle* no. 3553, July 1890 (type in herb. Gray); near San Dieguito, *Palmer* no. 112, June 12-16, 1904 (type of *O. angustiloba*, in herb U. S. Nat. Museum).

When the original descriptions of *Operculina Roseana* and *O. angustiloba* were drawn up, the identity of them with *Ipomoea ornithopoda* Rob. was not suspected, for the reason that the description of the latter species does not mention the character of the operculate capsule. The species has two extremes of leaf-form in Mexico: one with very narrow lobes to the leaf-blade, typical *O. ornithopoda*; and another with relatively broader and shorter lobes, *O. Roseana* House, regarded by GREENMAN as essentially the same species. It will be noted, however, that the narrow-lobed species (*O. ornithopoda*), so far as known, is confined to San Luis Potosi; while *O. Roseana* ranges from Sonora to Chiapas and Morelos, quite a different geographical and climatic region. Until specimens of intermediate distribution and characters are brought to light, the writer feels justified in maintaining both species.

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